WEST BENGAL STATE UNIVERSITY

B.Sc. Honours 3rd Semester Examination, 2021-22

ZOOACOR06T-ZOOLOGY (CC6)

Time Allotted: 2 Hours | Full Marks: 40

The figures in the margin indicate full marks.
Candidates should answer in their own words and adhere to the word limit as practicable.
All symbols are of usual significance.

1. Answer any ***eight*** questions from the following: 2×8 = 16

(a) What are chondrocytes?
(b) How does epithelial tissue differ from connective tissue?
(c) What are glial cells? State their function.
(d) Differentiate between basal lamina and basement membrane.
(e) What is neuroendocrine gland? Give an example.
(f) What is fertilization cone?
(g) Distinguish between isometric and isotonic muscle contraction.
(h) What is rigor mortis?
(i) Distinguish between resting membrane potential and action potential.
(j) What happens when there is hyposecretion of ADH?
(k) What is transitional epithelium? Mention its location.
(l) State the sites of synthesis of prolactin and glucagon.

2. Answer any ***three*** questions from the following: 3×3 = 9

(a) What is the difference between myelinated and non-myelinated nerve fibres? Which one conducts nerve impulse faster and why? 1+2
(b) Mention role of calcium in muscle contraction. 3
(c) Comment on the capacitation of mammalian sperm. 3
(d) Mention the factors which affect neuromuscular transmission. What is "all or none law"? 2+1
(e) What is corpus luteum? Comment on its formation and degeneration. 1+2

3. Answer any ***three*** questions from the following: 5×3 = 15

(a) Discuss the first messenger and second messenger concept of hormone action. 5
(b) Distinguish between voluntary and involuntary muscle. Describe "Walk- Along" theory of contraction. 2+3
(c) State the function of sodium pump in action potential. Elucidate synaptic conduction of nerve impulse with suitable diagram. 1+4
(d) What do you mean by "spontaneous and induced ovulator"? Give a brief account of hormonal control of ovulation in mammals. 2+3
(e) Describe different types of stratified squamous epithelium with location and function. 3+2

N.B. : *Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.*

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